DOCKET FILE COPY ORIGINAL

RECEIVED

NOV 15 1993

FEDERAL COMMUNICATIONS COMMISSION
OFFICE OF THE SECRETARY

Before the
FEDERAL COMMUNICATIONS COMMISSION
Washington, D.C. 20554

In the Matter of:	)	ET Docket No. 93-266
Review of the Pioneer's Preference Rules.	)	

COMMENTS

Motorola Satellite Communications, Inc. ("Motorola") hereby submits these comments in response to the Commission's Notice of Proposed Rule Making, FCC 93-477 (released Oct. 21, 1993) ("NPRM"), instituting this proceeding. Motorola does not believe that the Commission should modify its pioneer's preference rules as they relate to the proposals for mobile-satellite service ("MSS") and radiodetermination satellite service ("RDSS") in the 1610-1626.5 MHz and 2483.5-2500 MHz bands. The Commission has already created a filing window and accepted applications to operate satellite systems in these bands, and has made preliminary determinations on several pioneer's preference requests. Instead of changing the current rules, Motorola urges the Commission to apply its existing pioneer's preference rules in a manner consistent with their original purpose, and to grant to Motorola a pioneer's preference for the substantial technological and service innovations associated with the IRIDIUM™ system.

No. of Copies rec'd 0+4
List ABCDE

I. Introduction

As the Commission is well aware, Motorola is one of six applicants proposing to offer MSS and RDSS in the frequency bands above 1 GHz.[1] More than six years ago, Motorola embarked on a concentrated effort to design a revolutionary satellite system capable of meeting the mobile satellite communications needs of users around the world. The objective was to develop a satellite system able to provide digital, portable, personal communications services to and from virtually anywhere in the world on a continuous basis. These efforts culminated in the development of the IRIDIUM™ system, which uniquely combines state-of-the-art cellular communications and digital networking technologies into a low-Earth orbit ("LEO") satellite system. By placing a constellation of sixty-six satellites in six polar orbits and interconnecting the satellites with crosslinks, the IRIDIUM™ system will be able to offer a full range of communications services to lightweight portable subscriber units located anywhere in the world.

The Commission tentatively concluded in its Notice proposing spectrum allocations for the 1610-1626.5 MHz and 2483.5-

---

[1] See Application of Motorola Satellite Communications, Inc. for IRIDIUM -- A Low Earth Orbit Mobile Satellite System, File Nos. 9-DSS-P-91(87) & CSS-91-010 (Dec. 3, 1990); Minor Amendment to IRIDIUM System Application (August 10, 1992). In addition to Motorola, applications were timely filed by Loral Qualcomm Satellite Services, Inc. ("LQSS"), TRW, Inc. ("TRW"), Constellation Communications, Inc. ("Constellation"), Ellipsat Corporation ("Ellipsat"), and AMSC Subsidiary Corporation ("AMSC"). See CC Docket No. 92-166.

2500 MHz bands that none of the "Big" LEO MSS applicants, including Motorola, was entitled to a pioneer's preference under its rules.[2] In extensive comments in that allocation proceeding, Motorola urged the Commission to reconsider its preliminary assessment of Motorola's pioneer's preference request in light of the substantial innovations associated with the development of the IRIDIUM™ system.[3]

II. Motorola Is Entitled to a Pioneer's Preference Under the Commission's Existing Rules for the Innovations Associated with the IRIDIUM™ System

In making its initial determination not to grant Motorola's request for a pioneer's preference, the Commission failed to recognize the essential innovative technologies and services associated with the IRIDIUM™ system, and misapplied its own rules in the process. The Commission apparently denied Motorola's request because certain of the technologies which are employed in the IRIDIUM™ system have previously been used in other military satellite systems, and because Motorola had not provided detailed subsystem designs so as to demonstrate fully the

---

[2] See Notice of Proposed Rule Making and Tentative Decision, ET Docket No. 92-28, 7 FCC Rcd. 6414 (1992).

[3] See Comments of Motorola in ET Docket No. 92-28 (Dec. 4, 1992); Reply Comments of Motorola in ET Docket No. 92-28 (Jan. 6, 1993). Motorola also objected to the Commission's apparent use of a group of outside "experts" to judge the merits of its pioneer's preference request without first notifying the applicants that such a panel was going to be consulted on this subject, and without providing Motorola with an opportunity to make presentations to this group of individuals.

technical feasibility of its overall system design.[4] Had the Commission properly applied its existing pioneer's preference rules to the substantial record presented by Motorola in support of its request, the FCC would have awarded a preference to Motorola. Under the Commission's rules, it can correct this error by awarding to Motorola a final preference at the time allocations are made for new MSS spectrum or when licensing and service rules are adopted for these bands.

Under the current rules, "[i]n determining . . . whether to grant a pioneer's preference, [the Commission] will consider whether the applicant has demonstrated that it (or its predecessor-in-interest) has developed an innovative proposal that leads to the establishment of a service not currently provided or a substantial enhancement of an existing service."[5] First and foremost, Motorola is the originator of the concept of a global dialtone. Its LEO satellite system is designed to provide personal mobile voice communications services to anyone, anywhere, anytime in the world using subscriber units that are small, lightweight, pocket-sized, battery-operated, and have low-profile

---

[4] In fact, Motorola has substantially completed the design of all major subsystem components of the IRIDIUM™ system. If the Commission concludes that Motorola is entitled to a pioneer's preference but for the submission of this information, Motorola would consider submitting this highly proprietary data to the Commission on a confidential basis.

[5] See Establishment of Procedures to Provide a Preference, Reconsideration Order, 7 FCC Rcd. 1080, 1813 (1992).

antennas.[6] The IRIDIUM™ system design has also resulted in a revival in consideration of LEO satellites for real-time voice and other telecommunications. Motorola has taken an old concept -- LEO satellites -- and surrounded that concept with many highly advanced subsystems not previously used in commercial applications, and thereby created a new, innovative personal mobile communications service.

The technological innovations encompassed in the IRIDIUM™ system will enable, for the first time, persons anywhere in the world to communicate with one another using portable handsets. Such communications will include digital voice, data and paging, and will provide for interconnection to the public switched telephone network. While others have proposed the commercial and noncommercial use of LEO satellites in the VHF/UHF bands ("little LEOs"), Motorola's personal communications vision is substantially different from those satellite systems. The "little LEOs" are primarily directed at providing store-and-forward data communications services over a relatively small bandwidth. The IRIDIUM™ system, on the other hand, will be capable of providing worldwide voice communications on a real-time basis to tens of thousands of users simultaneously. Furthermore, unlike the proposed "little LEO" systems, the IRIDIUM™ system constellation will ensure universal service to virtually any point on the Earth on a continuous basis.

---

[6] See Motorola's Supplement to Request for Pioneer's Preference, PP-32, at 6-8 (April 10, 1992).

There also should be no question that Motorola is the true pioneer of these developments by having brought out the capabilities or possibilities of the technology and service, and taken them to a more advanced or effective state. Motorola began development of the key components of the IRIDIUM™ system over six years ago, well before any other LEO MSS applicant indicated any interest in this service.[7] To date, Motorola has spent over $100 million dollars in the basic research and development of the IRIDIUM™ system and in pursuing authorization and implementation in the United States and throughout the world. This considerable effort has resulted in the development of several significant innovations which are the subjects of patents for key components of the IRIDIUM™ system.

The IRIDIUM™ system also will lead to the establishment of mobile satellite communications services not currently being offered, as well as the substantial enhancement of existing mobile communications services. To date, commercial land mobile satellite communications have been limited primarily to position location and data services in the transportation and shipping industries. Voice-grade land mobile satellite communications services by a U.S. licensee will not be available in the United States for several years at best. Even these services will require relatively bulky ground equipment for reception from and transmission to geostationary satellites. The IRIDIUM™ system will establish, for the first time, a global dialtone to personal

---

[7] See Motorola's Supplement to Request for Pioneer's Preference, PP-32, at 4-6.

voice handsets. Furthermore, this new personal communications service will offer, among other things:

- An added functionality provided to a broader group of customers;
- A use of the spectrum different than previously available;
- A change in the operating or technical characteristics of a service; and
- Efficiencies in spectrum use, speed or quality of information transfer.[8]

III. There is No Reason to Change the Pioneer's Preference Rules as They Apply to MSS Spectrum

A. Competitive Bidding Should Not Apply to the Pending MSS/RDSS Applications

The Commission's new authority to issue licenses through a mechanism of competitive bidding does not affect, in any way, the original basis for, and purpose of, its pioneer's preference rules as they relate to licensing MSS systems above 1 GHz. Nor does such authority suggest any substantive changes to the pioneer's preference rules as applied to the current group of MSS applications.

As the Commission correctly recognizes, the primary purpose of its pioneer's preference rules is "to promote development of new technologies and services and to improve

---

[8] See Establishment of Procedures to Provide a Preference, Report and Order, 6 FCC Rcd. 3488, 3494 (1991).

existing services."[9] This objective is to be fostered by reducing the delays and risks innovators otherwise face in obtaining a license by either random selection or comparative hearing. "The rationale for granting a pioneer's preference is that the requester is responsible for one or more significant innovations that relate to communications technology and service and has invested significant effort in developing the innovation and pursuing authorization of its implementation."[10]

Contrary to the Commission's tentative view, the establishment of competitive bidding authority does not undermine the basis for its pioneer's preference rules and policies, at least as they are applied to the current group of Big LEO applicants. Indeed, as pointed out by a number of commenting parties in the Commission's auction rule making proceeding, there are substantial policy and legal reasons for not using competitive bidding to license the proposed Big LEO systems. Of particular significance is the fact that the pending Big LEO applications are not mutually exclusive, and that therefore, there is no legal basis for holding an auction for MSS/RDSS licenses in the 1610-1626.5 MHz and 2483.5-2500 MHz bands.[11] Absent any changed circumstances in the manner in which licenses are to be awarded

---

[9] See NPRM at ¶ 2.

[10] Amendment of the Commission's Rules to Establish New Personal Communications Services, 7 FCC Rcd. 5676, 5734 ¶ 146 (1992).

[11] See Comments of Motorola Satellite Communications, Inc., TRW Inc., Loral Qualcomm Satellite Services, Inc., and AMSC Subsidiary Corp., PP Docket No. 93-253 (Nov. 10, 1993).

for Big LEO systems, there is no basis for modifying the existing pioneer's preference rules for proposed systems in those bands.

B. There Is No Other Basis for Changing the Substantive Test for Granting Pioneer's Preference Requests for Big LEO Applicants

Nor is there any other basis for the Commission to modify its rules as they apply to the proposed MSS systems by granting preferences only to those entities that demonstrate new technologies which lead to new services. While Motorola agrees with the Commission that "a telecommunications pioneer should be an entity that at an early stage of a technology's or service's development has been instrumental in influencing that development,"[12] and that speculative pioneer's preference requests should be discouraged, significant advancements in communications can develop from the use of new technologies and from the application of existing technologies to create new services. Indeed, the Communications Act of 1934, as amended, requires the Commission to encourage the development of both new technologies and services.[13] As set forth in Motorola's pioneer's preference request and accompanying materials, a service not currently provided or a significant enhancement of an existing service can be achieved not only through the development of new technologies, but also by combining existing technologies in new and innovative

---

[12] NPRM at ¶ 14.

[13] See 47 U.S.C §§ 157(a) & 303(g).

ways. The Commission should continue to encourage both types of innovation through its pioneer's preference rules.

IV. Conclusion

For the foregoing reasons, the Commission should not revise its pioneer's preference rules as they are applied to the pending applications for MSS and RDSS above 1 GHz, and it should award Motorola a pioneer's preference for the substantial innovations associated with the IRIDIUM™ system.

Respectfully submitted,

MOTOROLA SATELLITE COMMUNICATIONS, INC.

Philip L. Malet
Steptoe & Johnson
1330 Connecticut Avenue, N.W.
Washington, D.C. 20036
(202)-429-6239

Barry Lambergman
Fletcher Heald & Hildreth
1300 North 17th Street
11th Floor
Rosslyn, VA 22209
(703) 812-0400

Its Attorneys

Michael D. Kennedy
Director, Regulatory Relations
Motorola Inc.
1350 I Street, N.W., Suite 400
Washington, D.C. 20005
(202) 371-6900

November 12, 1993

CERTIFICATE OF SERVICE

I, Philip L. Malet, hereby certify that the foregoing Comments were served by hand this 15th day of November, 1993 on the following persons:

Chairman James H. Quello
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Commissioner Andrew C. Barrett
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 10554

Commissioner Ervin S. Duggan
Federal Communications Commission
1919 M Street, N.W.
Washington, D.C. 20554

Kathleen B. Levitz
Acting Chief, Common Carrier Bureau
Federal Communications Commission
Room 500
1919 M Street, N.W.
Washington, D.C. 20554

Thomas P. Stanley
Chief Engineer
Federal Communications Commission
2025 M Street, N.W.
Room 7002
Washington, D.C. 20554

Raymond LaForge
Federal Communications Commission
Room 7334
2025 M Street, N.W.
Washington, D.C. 20554

Robert M. Pepper
Office of Plans and Policy
Federal Communications Commission
1919 M Street, N.W.
Room 822
Washington, D.C. 20554

Philip L. Malet